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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/751,467	12/29/2000	Robert B. Turnbull	13039RRUS01U	7166

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EXAMINER

JAMAL, ALEXANDER

ART UNIT	PAPER NUMBER
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2643

DATE MAILED: 05/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/751,467

Applicant(s)

TURNBULL, ROBERT B.

Examiner

Alexander Jamal

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 29 December 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 1-5, 7-21**, rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admitted prior art (Specification), and further in view of Svala (4348768), and further in view of La Marche et al. (3673355).

As per **claims 1,2,15**, Applicant's admitted prior art discloses a voice over IP telephone system (specification pg 2, lines 10-16) that inherently comprises a telephone unit with a microphone and speaker for the purpose of providing an interface between the human user and the communication system. The system further inherently comprises a computer for the purpose of interfacing with the IP network. The computer further inherently comprises a bus coupled to the converter for the purpose of providing an interface between the converter signaling and all the other inputs and outputs of the computer. The system further inherently comprises a processor (controller) coupled to the bus interface and converter for the purpose of synchronizing and commanding the signaling between the converter and the interface. However, applicant's admitted prior art does not disclose a converter coupled to the telephone device to perform A/D and D/A conversion, or that the controller functions to detect and attenuate echo conditions.

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Furthermore, the prior art does not disclose that the bus interface is a USB interface, or that the converter will transmit digital linear signals to the computer.

Svala discloses an A/D and D/A converter (CODEC) (ABSTRACT) (Col 1 lines 25-67) that may be used in PCM situations to interface analog and digital devices. Svala teaches a CODEC that uses the same DAC for encoding and decoding without adding complexity to the circuit. Applicant's admitted prior art comprises an interface between an analog source (the user) and a digital source (the computer). The system inherently requires a converter to interface the analog and digital signaling. It would have been obvious to one of ordinary skill in the art at the time of this application to implement Svala's CODEC as the converter for the reason that it may use one DAC for both encoding and decoding signals, thereby saving cost over other, less efficient codecs.

La Marche teaches a system to suppress digital echo that provides detection and attenuation for echo conditions (La Marche: ABSTRACT, Col 1 lines 10-27). He teaches that this system may be used to suppress echoes on a communication line. Applicant's Specification (page 2 lines 15-25) discloses that IP telephony systems are susceptible to echo. As such, it would have been obvious to one of ordinary skill in the art at the time of this application to implement the controller such that it detected and attenuated echo conditions for the purpose of reducing the echo in the IP based telephony system.

Although the applicant's admitted prior art does not disclose that the device couples to the computer via a USB port, the applicant's specification does disclose that USB ports are well known in the art (Specification page 7 lines 10-15). The specification (page 10 line 23 to Page 11 line 6) also discloses that the WAVE format (comprising 16 bit digital linear coding) is a

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standard signaling format commonly used on PC's. It would have been obvious to one of ordinary skill in the art at the time of this application to utilize one of the known standard ports on a computer (such as the USB port), and implement CODEC taught by Svala to further convert (expand) its digital output signal (either A-Law or Mu-Law) to a standard WAVE (linear and digital) format for the purpose of the apparatus being compatible (able to communicate) with a majority of the known computers, as opposed to creating a whole new port/protocol to interface with. The converter would also convert in the other direction (digital linear to digital U-law to analog).

As per **claim 8**, claim 8 is rejected for the same reasons as claim 1. The device described will perform the method of claim 8. In addition, the device (La Marche's: Col 2 lines 1-10) will measure the relative amplitude of the transmit and receive linear signals (east and west signals) (Col 3 line 30 to Col 4 line 15). If the receive signal amplitude is greater than a threshold the transmit signal is attenuated and If the transmit signal amplitude is greater than a threshold the receive signal is attenuated (Col 1 lines 10-20).

As per **claim 16,13,14,18**, the claim is rejected for the same reasons as claims 1 and 8. In addition, La Marche discloses sampling and averaging the transmit signals and sampling and averaging the transmit signals to generate speech envelopes (Col 2 line 8-14) (Col 2 line 65 to Col 3 line 30). Depending upon the envelope, the device will attenuate the appropriate channel as described above.

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As per **claims 19,20,21**, claim 19 rejected for the same reasons as claims 1,8,16.

As per **claims 3,4,5**, claims rejected for same reasons as claim 1.

As per **claim 7**, La Marche (Col 3 lines 48-55) discloses a side tone (noise) path coupled between the input and output of the converter that is capable of inserting a sidetone into a signal.

As per **claims 9,12,17**, La Marche discloses that when the amplitudes of both the receive and transmit signals are greater than thresholds (double-talk), then the received linear signal is partially attenuated (Col 3 lines 15-30).

As per **claims 10,11**, when attenuated, the transmit and receive signals are fully attenuated (Col 3 lines 30-55).

3. **Claim 6** rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admitted prior art (Specification) in view of Svala (4348768) in view of La Marche et al. (3673355) and further in view of Seidel et al. (4048453).

As per **claim 6**, applicant's prior art, Svala, and La Marche disclose applicant's claim 1 but do not mention the telephone device comprising a telephone headset.

Seidel discloses a telephone headset (ABSTRACT, Fig. 8). He mentions that the headset will allow the user to maintain the phone in a talking position while keeping their hands free (Col 1 lines 5-20). It would have been obvious to one of ordinary skill in the art at the time of this application to implement a telephone headset for the purpose of allowing the user to maintain the phone in a talking position while keeping their hands free.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander Jamal whose telephone number is 703-305-3433. The examiner can normally be reached on M-F 8AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis A Kuntz can be reached on 703-305-4708. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for regular communications and 703-872-9315 for After Final communications.

AJ  
April 29, 2004

  
CURTIS KUNTZ  
SUPERVISORY PATENT EXAMINER  
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